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NOTICE OF ALLOWANCE AND FEE(S) DUE

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314

EXAMINER

YOUNG, NATASHA E

ART UNIT PAPER NUMBER

1774

DATE MAILED: 05/27/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,045	01/10/2005	Atsushi Kudo	255291US90PCT	2143

TITLE OF INVENTION: HONEYCOMB FILTER FOR EXHAUST GAS DECONTAMINATION, ADHESIVE, COATING MATERIAL AND PROCESS FOR PRODUCING HONEYCOMB FILTER FOR EXHAUST GAS DECONTAMINATION

APPLN. T	YPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovis	ional	NO	\$1510	\$300	\$0	\$1810	08/29/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED.</u> SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

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III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450

Alexandria, Virginia 22313-1450 (571)-273-2885 or <u>Fax</u>

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for

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1940 DUKE STREET

ALEXANDRIA, VA 22314

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below. (Depositor's name (Signature (Date APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 10/502,045 01/10/2005 Atsushi Kudo 255291US90PCT 2143 TITLE OF INVENTION: HONEYCOMB FILTER FOR EXHAUST GAS DECONTAMINATION, ADHESIVE, COATING MATERIAL AND PROCESS FOR PRODUCING HONEYCOMB FILTER FOR EXHAUST GAS DECONTAMINATION DATE DUE SMALL ENTITY ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE APPLN, TYPE NO \$1510 \$300 \$0 \$1810 08/29/2011 nonprovisional **EXAMINER** ART UNIT CLASS-SUBCLASS YOUNG, NATASHA E 1774 422-180000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment. (B) RESIDENCE: (CITY and STATE OR COUNTRY) (A) NAME OF ASSIGNEE 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) 4a. The following fee(s) are submitted: lssue Fee A check is enclosed. ☐ Publication Fee (No small entity discount permitted) Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number ______ (enclose an extra copy of this for Advance Order - # of Copies _ (enclose an extra copy of this form). 5. Change in Entity Status (from status indicated above) ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2). a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. Authorized Signature Date Typed or printed name Registration No. This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and an apparation. Community is governed by 53 0.3.C. 122 and 57 CFR 1.14. Inis collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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			YOUNG, NATASHA E		
			ART UNIT	PAPER NUMBER	
		1774			

DATE MAILED: 05/27/2011

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 182 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 182 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

	Application No.	Applicant(s)	
	10/502,045	KUDO ET AL.	
Notice of Allowability	Examiner	Art Unit	
	NATASHA YOUNG	1774	
The MAILING DATE of this communication appear All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIOF of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in the or other appropriate communing GHTS. This application is subset and MPEP 1308.	nis application. If not included cation will be mailed in due course. THIS bject to withdrawal from issue at the initiativ	/e
2. X The allowed claim(s) is/are 4-6,10,11,16 and 32-53.			
 3. Acknowledgment is made of a claim for foreign priority una) All b) ☐ Some* c) ☐ None of the: 1. Certified copies of the priority documents have 2. ☐ Certified copies of the priority documents have 3. ☐ Copies of the certified copies of the priority documents have International Bureau (PCT Rule 17.2(a)). 	been received. been received in Application	No	
* Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	IENT of this application.		
 4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give 5. CORRECTED DRAWINGS (as "replacement sheets") must 	es reason(s) why the oath or d		
(a) ☐ including changes required by the Notice of Draftspers		PTO-948) attached	
1) hereto or 2) to Paper No./Mail Date	<u>-</u>		
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.	s Amendment / Comment or in	drawings in the front (not the back) of	
each sheet. Replacement sheet(s) should be labeled as such in the first of the sheet of the shee	sit of BIOLOGICAL MATER	RIAL must be submitted. Note the	
Attachment(s) 1. ☑ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	6. ☐ Interview Sun Paper No./M 7. ☐ Examiner's Al	rmal Patent Application nmary (PTO-413), ail Date nendment/Comment ratement of Reasons for Allowance	

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 21, 2011 has been entered.

Allowable Subject Matter

Claims 4-6, 10-12, 16, and 32-53 are allowed.

The closest prior art references are Harada et al (WO 2001/051173 A, English Equivalent US 2002/0197193 A1), Yamamura et al (JP 2000-102709 A), and Kato et al (JP 10-306203 A).

The following is an examiner's statement of reasons for allowance:

Regarding claim 4, Harada et al discloses a honeycomb filter (see Abstract) for purifying exhaust gases, comprising: a plurality of columnar porous ceramic members (11) having a partition wall (14) and plurality of through holes (15), said through holes extending in parallel with one another in a length direction of said columnar porous ceramic members, said partition wall separating said through holes and configured to filter particulates in an exhaust gas, said through holes

of each said columnar porous ceramic members including ones sealed at an inlet side of said columnar porous ceramic members and ones sealed at an outlet side of said columnar porous ceramic member such that the exhaust gas enters from the inlet side, passes through the partition wall and flows out from the outlet side; and an adhesive layer combining said columnar porous ceramic members with one another and formed by drying an adhesive paste including a pore forming material which forms a plurality of pores adjusting a thermal capacity per unit volume of said adhesive layer becomes lower than a thermal capacity per unit volume of the porous ceramic members (see Abstract; paragraphs 0024-0030, 0038, and 0041-0043; and figures 1a-d), since ceramic fiber, ceramic powder, cement, or the like produces pores.

Kato et al discloses a resin molded product including pore forming material and wherein the pore forming material comprises at least one of a balloon and a resin material (see Abstract).

The prior art references do not disclose or suggest an adhesive layer formed by drying an adhesive paste, the adhesive paste including the pore forming material which comprises at least one of a balloon and a thermally decomposed resin material.

Claims 5, 6, 32-34, and 47-53 depend on claim 4.

Regarding claim 10, Harada et al discloses a honeycomb filter (see Abstract) for purifying exhaust gases, comprising: a ceramic block comprising at least one columnar porous ceramic member having a partition wall and plurality of through holes, said through holes extending in parallel with one another in a length

direction of said columnar porous ceramic members, said partition wall separating said through holes and configured to filter particulates in an exhaust gas, said through holes of each said columnar porous ceramic members including ones sealed at an inlet side of said columnar porous ceramic members and ones sealed at an outlet side of said columnar porous ceramic member such that the exhaust gas enters from the inlet side, passes through the partition wall and flows out from the outlet side (see Abstract; paragraphs 0024-0030, 0038, and 0041-0043; and figures 1a-d).

Yamamura et al discloses coating the peripheral part of the ceramic block by the sealant which contains an inorganic fiber, an inorganic binder, an organic binder, and an inorganic particle at least (see paragraphs 15 and 22-25) resulting in a coating material layer formed on a circumferential face of said ceramic block and formed by drying a coating material paste including a pore forming which forms a plurality of pores adjusting a thermal capacity per volume of said coating material layer is lower than a thermal capacity per unit volume of the porous members, since inorganic fiber and silicon carbide produces pores.

Kato et al discloses a resin molded product including pore forming material and wherein the pore forming material comprises at least one of a balloon and a resin material (see Abstract).

The prior art references do not disclose or suggest a coating material layer formed by drying a coating material paste, the coating material paste including the pore

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forming material which comprises at least one of a balloon and a thermally decomposed resin material.

Claims 11 and 35-37 depend on claim 10.

Regarding claim 16, Harada et al discloses a honeycomb filter (see Abstract) for purifying exhaust gases, comprising: a plurality of columnar porous ceramic members having a partition wall and plurality of through holes, said through holes extending in parallel with one another in a length direction of said columnar porous ceramic members, said partition wall separating said through holes and configured to filter particulates in an exhaust gas, said through holes of each said columnar porous ceramic members including ones sealed at an inlet side of said columnar porous ceramic members and ones sealed at an outlet side of said columnar porous ceramic member such that the exhaust gas enters from the inlet side, passes through the partition wall and flows out from the outlet side; and an adhesive layer combining said columnar porous ceramic members with one another and formed by drying an adhesive paste including a pore forming material which forms a plurality of pores adjusting a thermal capacity per unit volume of said adhesive layer becomes lower than a thermal capacity per unit volume of the porous ceramic members (see Abstract; paragraphs 0024-0030, 0038, and 0041-0043; and figures 1a-d).

Yamamura et al discloses coating the peripheral part of the ceramic block by the sealant which contains an inorganic fiber, an inorganic binder, an organic binder, and an inorganic particle at least (see paragraphs 15 and 22-25) resulting in **a coating**

material layer formed on a circumferential face of said ceramic block and formed by drying a coating material paste including a pore forming which forms a plurality of pores adjusting a thermal capacity per volume of said coating material layer is lower than a thermal capacity per unit volume of the porous members, since inorganic fiber and silicon carbide produces pores.

Kato et al discloses a resin molded product including pore forming material and wherein the pore forming material comprises at least one of a balloon and a resin material (see Abstract).

The prior art references do not disclose or suggest an adhesive layer formed by drying an adhesive paste, the adhesive paste including the pore forming material which comprises at least one of a balloon and a thermally decomposed resin material; and a coating material layer formed by drying a coating material paste, the coating material paste including the pore forming material which comprises at least one of a balloon and a thermally decomposed resin material.

Claims 38-46 depend on claim 16.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATASHA YOUNG whose telephone number is 571-270-3163. The examiner can normally be reached on Mon-Thurs 7:30 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. Y./ Examiner, Art Unit 1774

/Walter D. Griffin/ Supervisory Patent Examiner, Art Unit 1774